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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,061	12/02/2003	Scott Jacobs	130136	9480

7590 12/14/2004  
Law Offices of John S. Munday  
PO BOX 423  
Isanti, MN 55040

EXAMINER

NGUYEN, CAMTU TRAN

ART UNIT PAPER NUMBER

3743

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/727,061	Applicant(s) JACOBS, SCOTT	
	Examiner Camtu T. Nguyen	Art Unit 3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s)        is/are withdrawn from consideration.
- 5) ☐ Claim(s)        is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s)        is/are objected to.
- 8) ☐ Claim(s)        are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on        is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No.       .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. <u>      </u> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                     |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>      </u> | 6) <input type="checkbox"/> Other: <u>      </u>  |

## DETAILED ACTION

### *Response to Amendment*

This Office Action is in response to applicant's amendment filed on November 15, 2004. Claims 1, 7, and 13 have been amended. Applicant's comments pertaining to the Adell reference are acknowledged. The claims, as amended, have been carefully considered and are further rejected for the reasons below.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7-10, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frantz et al (U.S. Patent No. 5,794,627) in view of Adell (U.S. Patent No. 5,406,963). Frantz discloses in Figures 1-4 an appliance having an upper tray and a lower tray holding impression material into which a patient bites and a pull-strap (50) extending forward out of the patient's mouth. Figures 1-3 illustrates an upper and lower trays (12, 14) generally a U-shaped having front portions (26, 28), left and right sides (36, 36', 38, 38') and the sides having side troughs (16, 16', 18, 18') and the putty rope (20) are placed in the troughs (16, 16', 18, 18') as shown in Figure 3. The putty rope (20) moves around the teeth to extend into the teeth undercuts and hardens around the teeth and against the soft tissues in order to secure the trays (12, 14) onto

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the upper and lower teeth and tissues. Frantz discloses the appliance may be made of plastic and the putty rope placed in the appliance's troughs is an impression material. The Frantz appliance device lacks a plurality of holes therein, as recited. Adell discloses in Figures 1-5 a mouthguard (10) which generally is a U-shaped for fitting into the mouth and comprising wall (14) and trough (16, 18) on opposite sides. The mouthguard (10) includes series of holes (20) extending through wall (14). Adell discloses a liner (12) received in the trough (16, 18) and Figure 5 illustrates the liner (12) is received through the holes (12). Adell discloses the mouthguard (10) is made of ethylene/vinyl acetate copolymer. Therefore it would have been obvious to one skilled in the art to include holes on the Frantz appliance as taught by Adell as such would fill the impression putty material (20) in the holes, thereby, lock the appliance and the impression putty material together.

Claims 5, 6, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frantz et al (U.S. Patent No. 5,794,627), as modified above, and further in view of Ueno (U.S. Patent 5,513,984). Frantz et al discloses in Figures 1-4 an appliance having an upper tray and a lower tray holding impression material into which a patient bites and a pull-strap (50) extending forward out of the patient's mouth comprising elements as recited in these claims except for the impression material is not a gel, as recited. Ueno discloses in Figures 10 and 11 a construction of a mouthpiece wherein the ball members (3) are arranged and received in a groove (16). Ueno teaches the ball members (3) is made of thermoplastic elastomer (e.g. styrene block copolymer) which offers a softening point of higher than 100° C, higher than that of the mouthpiece. Therefore it would have been obvious to one skilled in the art during the time of the invention to

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utilize the styrene block copolymer, suggested by Ueno, in the Frantz appliance as such would provide cushioning effect when compressed upon contact on the user during use.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

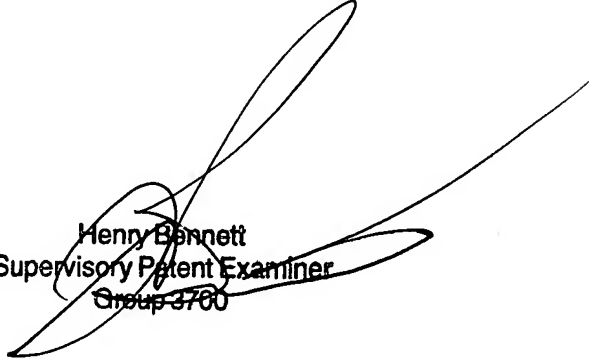
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camtu T. Nguyen whose telephone number is 703-305-0537. The examiner can normally be reached on (M-F) 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry A. Bennett can be reached on 703-308-0101. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Camtu Nguyen  
December 10, 2004



Henry Bennett  
Supervisory Patent Examiner  
Group 3700